

I CLAIM:

1 1. A brake assembly for inline skates having a boot
2 portion, a frame supported below said boot portion,
3 said frame having a right and a left downwardly
4 directed frame members, each downwardly directed frame
5 member having at least three sets of openings for
6 supporting at least three axles, each axle supporting a
7 wheel, and each opening having an inwardly directed
8 bearing supporting protrusion extending inwardly from
9 an inner face of each frame member and each inwardly
10 directed bearing supporting protrusion having a
11 peripheral edge, each frame member extending below said
12 axles, said brake assembly comprising:

13 a right and a left carrier plate positioned along
14 at least a portion of the inner face of said right and
15 left downwardly directed frame members, each carrier
16 plate having at least two elongated openings positioned
17 over at least two bearing supporting protrusions so
18 that said right and left carrier plates can move
19 between an engaged position and a disengaged position,
20 said elongated openings having a major dimension and a

21 minor dimension and said minor dimension being about
22 equal to an outer dimension of said protrusions;

23 a plurality of diabolos supported by said right
24 and left carrier plates, each diabolo having a pair of
25 wheel contacting portions, said plurality of diabolos
26 being positioned so that they do not contact a wheel
27 when said carrier plate is in a disengaged position and
28 so that they contact a wheel when said carrier plates
29 are in an engaged position; and

30 means for moving said carrier plates between a
31 disengaged position and an engaged position.

1 2. The brake assembly of Claim 1 wherein said means
2 for moving said carrier plates between a disengaged
3 position and an engaged position comprises a collar
4 pivotally held about an ankle portion of said boot,
5 said collar having a force conveying member connected
6 to said right and left carrier plates and adapted to
7 move said carrier plates to a disengaged position when
8 said collar is in a forward position and to move said
9 carrier plates to an engaged position when said collar
10 is in a rearward position.

- 1 3. The brake assembly of Claim 1 wherein said
2 elongated openings have said major dimension oriented
3 horizontally and surround said respective peripheral
4 edges of said protrusions over which they are
5 positioned.
- 1 4. The brake assembly of Claim 1 wherein said
2 elongated openings have said major dimension oriented
3 vertically and surround said respective peripheral
4 edges of said protrusions over which they are
5 positioned.
5. The brake assembly of Claim 1 wherein said carrier
plates are biased toward a disengaged position.
6. The brake assembly of Claim 1 wherein said carrier
plates are pivotally supported about a front wheel of
said inline skate.
7. The brake assembly of Claim 1 wherein each of said
diabolos has an axis of rotation and said axis of
rotation of at least one of said diabolos is positioned
below an axis of rotation of all of said wheels.

1 8. The brake assembly of Claim 1 wherein each of said
2 diabolos comprise two members rotatably held over a
3 diabolo axle supported by said carrier plates, each of
4 said members having a tapered surface for contacting an
5 outer surface of a wheel and the tapered surface having
6 a wider portion at an outer side and a narrower portion
7 at an inner side and each of said separate members
8 having a friction inducing surface on an outer end of
9 said separate members for contact with said carrier
10 plates when said diabolo is moved into a braking
11 position.

9. The brake assembly of Claim 8 wherein said members
are separated from one another in each diabolo.

10. The brake assembly of Claim 8 wherein said members
are integral and covered with a flexible polymer.

1 11. A brake assembly for inline skates having a boot
2 portion, a frame supported below said boot portion,
3 said frame having a right and a left downwardly
4 directed frame members, each downwardly directed frame
5 member having at least three sets of openings for

6 supporting at least three axles, each axle supporting a
7 wheel, said brake assembly comprising:

8 a right and a left carrier plate positioned along
9 at least a portion of the inner face of said right and
10 left downwardly directed frame members and said right
11 and left carrier plates are movably supported by said
12 frame so that said right and left carrier plates can
13 move between an engaged position and a disengaged
14 position;

15 at least one diabolo supported by said right and
16 left carrier plates, said at least one diabolo having a
17 pair of wheel contacting portions, said at least one
18 diabolo being fabricated in a one piece body having a
19 flexible radially outwardly facing portion, a narrowed
20 inner portion and an outer frictional portion and said
21 at least one diabolo being configured so that the
22 radially outwardly facing portion and narrowed inner
23 portion do not contact said wheel when said carrier
24 plates are in a disengaged position and so that when
25 said carrier plates are in an engaged position, said
26 radially outwardly facing portion does contact said
27 wheels and is urged outwardly so that said outer

28 frictional portion is urged outwardly into contact with
29 said carrier plates ; and

30 means for moving said carrier plates between a
31 disengaged position and an engaged position.

1 12. The brake assembly of Claim 11 wherein said at
2 least one diabolo is held in a horizontally oriented
3 slot in said pair of carrier plates and is oriented
4 between two adjacent wheels and when moved vertically,
5 contacts said two adjacent wheels.

13. The brake assembly of Claim 11 wherein the body of
 said diabolo is fabricated from a polymeric material
 selected from the group consisting of polyurethane,
 rubber, polytetrafluoro ethylene, polyetheretherketone,
 polyetherimide and phenolic based resin.

14. The brake assembly of Claim 11 wherein said
 diabolo has a cylindrical axle made of a rigid
 material.

15. The brake assembly of claim 11 wherein said at least
 one diabolo is supported by an axle held by said

carrier plates in a manner so that the axle can not turn with respect to said carrier plates.